

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-35. (Canceled).

36. (Currently Amended) ~~The fixing device according to claim 35~~ A fixing device comprising:

a heating roller made of a magnetic metal;

a coil which includes a plurality of wires;

an exciting circuit that applies a high-frequency current to the coil; and

a core which is arranged inside the heating roller;

wherein the core has two grooves, each of the grooves being formed on a surface of the core and runs along a longitudinal direction of the core, the two grooves being placed so as to be opposed to each other with the core being sandwiched therebetween in a direction, the direction being perpendicular to the longitudinal direction of the core, and

wherein the coil is wound on the surface of the core, and parts of the coil are buried in the two grooves, and

wherein two end portions of the coil, which serve as outgoing line portions of the coil going out of and returning to the core, are taken out of the core and attached to each other.

37. (Previously Presented) The fixing device according to claim 36, wherein the two end portions are parallel to each other.

38. (Previously Presented) The fixing device according to claim 36, wherein the two end portions are twisted.

39. (Previously Presented) The fixing device according to claim 36, wherein the coil is formed of an insulating wire.

40. (Currently Amended) ~~The fixing device according to claim 35,~~ A fixing device comprising:

a heating roller made of a magnetic metal;

a coil which includes a plurality of wires;

an exciting circuit that applies a high-frequency current to the coil; and

a core which is arranged inside the heating roller;

wherein the core has two grooves, each of the grooves being formed on a surface of the core and runs along a longitudinal direction of the core, the two grooves being placed so as to be opposed to each other with the core being sandwiched therebetween in a direction, the direction being perpendicular to the longitudinal direction of the core, and

wherein the coil is wound on the surface of the core, and parts of the coil are buried in the two grooves,

wherein the core further comprises at least two other grooves, each of the other grooves being formed on a surface of the core in the vicinity of each of two end portions thereof, and

wherein parts of the coil are buried in the two other grooves so that a distance between the outer surface of the coil wound on the core and the inner surface of the heating roller is constant.

41. (Currently Amended) The fixing device according to claim ~~[[35]]~~ 36, wherein the core is made of a heat resistant resin.

42-57. (Canceled).

58. (New) The fixing device according to claim 40, wherein the core is made of a heat resistant resin.